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09/729,523	12/04/2000	Kinney Bacon	A-6237	4555

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SCIENTIFIC-ATLANTA, INC.
INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

SHERKAT, AREZOO

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 05/13/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

87

Office Action Summary

Application No.

09/729,523

Applicant(s)

BACON ET AL.

Examiner

Arezoo Sherkat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2000.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2&3.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-21 have been presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-13, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al., (U.S. Patent No. 6,026,506 and Anderson hereinafter).

Regarding claim 1, Anderson discloses in a system with a plurality of packetized data streams, a method of designating a source of at least one packetized data stream

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within a multiplexed signal including at least a portion of the at least one packetized data stream, the method comprising the steps of:

assigning a unique designator to the source of the at least one packetized data stream (i.e., PID)(Col. 3, lines 65-67 and Col. 4, lines 1-5);

multiplexing at least the portion of the at least one packetized data stream with at least a portion of a second packetized data stream to create the multiplexed signal, and transmitting the unique designator in conjunction with the multiplexed signal, wherein transmission of the unique designator indicates the source of the portion of the multiplexed signal as the source of the at least one packetized data stream (Col. 1, lines 50-67 and Col. 2, lines 1-36).

Regarding claim 2, Anderson discloses wherein the packetized data stream is in a format compliant with one of Moving Picture Experts Group type 2 (MPEG-2) standard, Moving Picture Experts Group type 4 (MPEG-4) standard, Asynchronous Transfer Modulation (ATM) standard, and Internet Protocol (IP) standard (Col. 2, lines 17-36).

Regarding claim 3, Anderson discloses wherein the step of transmitting the unique designator comprises the steps of:

creating a unique designator signal that includes the unique designator (i.e., PID)(Col. 3, lines 65-67 and Col. 4, lines 1-5); and

transmitting the unique designator signal in conjunction with the multiplexed signal, wherein the unique designator signal provides the unique designator at the start of the at least one packet of the at least one packetized data stream (i.e., PID is a part of the packet headers of the transport packet stream)(Col. 4, lines 27-67 and Col. 5, lines 1-15).

Regarding claim 4, Anderson discloses wherein the step of transmitting the unique designator comprises the steps of:

creating a unique designator signal that includes the unique designator (i.e., PID)(Col. 3, lines 65-67 and Col. 4, lines 1-5); and

transmitting the unique designator signal in conjunction with the multiplexed signal, wherein the unique designator signal provides the unique designator at the start of the at least one byte of the at least one packetized data stream (i.e., PID is a part of the packet headers of the transport packet stream)(Col. 4, lines 27-67 and Col. 5, lines 1-15) .

Regarding claim 5, Anderson discloses in a system with a plurality of packetized data streams, a method of designating to an external conditional access module (i.e., Conditional Access Table that is used to specify scrambling/descrambling control and access) a source of at least one packetized data stream within a multiplexed signal including at least a portion of the at least one packetized data stream, the method comprising the steps of:

assigning a unique designator to the source of the at least one packetized data stream (i.e., PID)(Col. 3, lines 65-67 and Col. 4, lines 1-5);

multiplexing at least the portion of the at least one packetized data stream with at least a portion of a second packetized data stream to create the multiplexed signal, and transmitting the unique designator in conjunction with the multiplexed signal to the external conditional access module, wherein transmission of the unique designator indicates the source of the portion of the multiplexed signal as the source of the at least one packetized data stream (Col. 1, lines 50-67 and Col. 2, lines 1-36).

Regarding claim 6, Anderson discloses wherein the packetized data stream is in a format compliant with one of Moving Picture Experts Group type 2 (MPEG-2) standard, Moving Picture Experts Group type 4 (MPEG-4) standard, Asynchronous Transfer Modulation (ATM) standard, and Internet Protocol (IP) standard (Col. 2, lines 17-36).

Regarding claim 7, Anderson discloses wherein the step of transmitting the unique designator comprises the steps of:

creating a unique designator signal that includes the unique designator (i.e., PID)(Col. 3, lines 65-67 and Col. 4, lines 1-5); and

transmitting the unique designator signal in conjunction with the multiplexed signal to the external conditional access module, wherein the unique designator signal provides the unique designator at the start of the at least one packet of the at least one

packetized data stream (i.e., PID is a part of the packet headers of the transport packet stream)(Col. 4, lines 27-67 and Col. 5, lines 1-15).

Regarding claim 8, Anderson discloses wherein the external conditional access module decrypts the at least one packet of the at least one packetized data stream based on the source of the at least one packetized data stream indicated by the unique designator (i.e., the Program Map Table provides the PIDs for the selected program s audio, video, and control streams. The streams with the selected PIDs are extracted and delivered to the appropriate buffers and decoders for reconstruction and decoding)(Col. 4, lines 27-67 and Col. 5, lines 1-15).

Regarding claim 9, Anderson discloses a method of multiplexing together packets from at least two packetized data streams to enable decryption of the packets by an external conditional access module (i.e., Conditional Access Table that is used to specify scrambling/descrambling control and access), the method comprising the steps of

assigning a unique designator to each originating packetized data stream of the at least two packetized data streams (i.e., PID)(Col. 3, lines 65-67 and Col. 4, lines 1-5); and

multiplexing the packets forming portions of the at least two packetized data streams into a signal, and creating an association for each packet in the signal with the unique designator of the originating packetized data stream from which each packet

originated, transmitting the signal and the associations of the packets to the external conditional access module, and decrypting, in the external conditional access module, the packets in the signal based on the originating packetized data stream as indicated by the associated unique designator (i.e., PID is a part of the packet headers of the transport packet stream)(Col. 1, lines 50-67 and Col. 2, lines 1-17 and Col. 4, lines 27-67 and Col. 5, lines 1-15).

Regarding claim 10, Anderson discloses wherein the at least two packetized data streams are in a format compliant with one of Moving Picture Experts Group type 2 (MPEG-2) standard, Moving Picture Experts Group type 4 (MPEG-4) standard, Asynchronous Transfer Modulation (ATM) standard, and Internet Protocol (IP) standard (Col. 2, lines 17-36).

Regarding claim 11, Anderson discloses in a system with a plurality of Moving Picture Experts Group type 2 (MPEG-2) standard transport streams and a host terminal, a method of designating to an external conditional access module (i.e., Conditional Access Table that is used to specify scrambling/descrambling control and access) a source of at least one packet of a first MPEG-2 transport stream within a multiplexed signal including the at least one packet of the first MPEG-2 transport stream, the method comprising the steps of:

assigning a unique designator to the source of the first MPEG-2 transport stream, creating a transport stream source indicator signal that includes the unique designator

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associated with the at least one packet of the first MPEG-2 transport stream (i.e., PID)(Col. 3, lines 65-67 and Col. 4, lines 1-5);

 multiplexing the at least one packet of the first MPEG-2 transport stream with packets from at least a portion of a second MPEG-2 transport stream to create the multiplexed signal (Col. 1, lines 50-67 and Col. 2, lines 1-17); and

 transmitting to the external conditional access module the transport stream source indicator signal in conjunction with the multiplexed signal, wherein transmission of the transport stream source indicator signal, by the unique designator, indicates the source of the at least one packet as the source of the first MPEG-2 transport stream (i.e., PID is a part of the packet headers of the transport packet stream)(Col. 4, lines 27-67 and Col. 5, lines 1-15).

 Regarding claim 12, Anderson discloses further including the step of decrypting, in the external conditional access module, the at least one packet based on the source of the first MPEG-2 transport stream (Col. 4, lines 13-67 and Col. 5, lines 1-15).

 Regarding claim 13, Anderson discloses further including the step of transmitting the decrypted at least one packet from the external conditional access module to the host terminal (Col. 4, lines 27-67 and Col. 5, lines 1-15).

 Regarding claim 21, Anderson discloses in a system with a plurality of packetized data streams, a method of designating a source of a first packetized data stream within

a multiplexed signal including at least a portion of the at least one packetized data stream, the method comprising the steps of:

assigning a unique designator to the source of the at least one packetized data stream (i.e., PID)(Col. 3, lines 65-67 and Col. 4, lines 1-5);

multiplexing at least the portion of the at least one packetized data stream with at least a portion of a second packetized data stream to create the multiplexed signal (Col. 1, lines 50-67 and Col. 2, lines 1-17); and

transmitting the unique designator in conjunction with the multiplexed signal, wherein transmission of the unique designator indicates the source of the portion of the multiplexed signal as the source of the at least one packetized data stream (i.e., PID is a part of the packet headers of the transport packet stream)(Col. 4, lines 27-67 and Col. 5, lines 1-15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al., (U.S. Patent No. 6,026,506 and Anderson hereinafter), in view of Banker et al., (U.S. Patent No. 5,485,221 and Banker hereinafter).

Regarding claim 14, Anderson discloses an external conditional access module that can decrypt, based on a unique designator that indicates a source of a data packet, data packets from at least one packetized data stream within an incoming multiplexed signal comprised of data packets from more than one packetized data stream, the external conditional access module (i.e., Conditional Access Table that is used to specify scrambling/descrambling control and access) comprising:

a host terminal interface (i.e., the receiving end) for receiving the incoming multiplexed signal from a host terminal, for transmitting an outgoing multiplexed signal to the host terminal, and for communicating the unique designator for each data packet in both the incoming multiplexed signal and the outgoing multiplexed signal (Col. 1, lines 50-67 and Col. 3, lines 57-67 and Col. 4, lines 1-43);

a de-multiplexer for de-multiplexing the incoming multiplexed signal into data packets associated with the at least one packetized data stream based on the unique designator associated with each data packet (i.e., the system layer or outer layer provides the controls for demultiplexing the interleaved compression layers, and in doing so defines the functions necessary for combining the compressed data streams, Fig. 3), a multiplexer for multiplexing the data packets, including those that were decrypted and those for which decryption was not allowed, into the outgoing multiplexed signal (i.e., data packets are multiplexed and transmitted to receiver devices regardless to whether or not the had the proper PID to decrypt and display it)(Col. 2, lines 1-37 and Col. 4, lines 27-67 and Col. 5, lines 1-15).

Anderson does not expressly disclose determining if decryption is allowed for the data packet.

However, Banker discloses a controller for determining if decryption is allowed for the data packets associated with the least one packetized data stream and for controlling decryption parameters, at least one decryptor for decrypting, if decryption is allowed, the data packets associated with the at least one packetized data stream using decryption parameters for the at least one packetized data stream (Col. 10, lines 64-67 and Col. 11, lines 1-67 and Col. 12, lines 1-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Anderson with the teachings of Banker because it would allow to include a controller for determining if decryption is allowed for the data packets associated with the least one packetized data stream and for controlling decryption parameters with the motivation to provide subscription television systems capable of transmitting and receiving channels of information, and for enabling display of a combination of services simultaneously (Banker, Col. 1, lines 15-25).

Regarding claim 15, Anderson discloses wherein the data packets and the packetized data stream are in a format compliant with one of Moving Picture Experts Group type 2 (MPEG-2) standard, Moving Picture Experts Group type 4 (MPEG-4) standard, Asynchronous Transfer Modulation (ATM) standard, and Internet Protocol (IP) standard (Col. 2, lines 17-36).

Regarding claim 16, Anderson discloses further comprising an encryptor for encrypting the data packets associated with the at least one packetized data stream (i.e., elementary streams are formed in an audio encoder, a video encoder, a source of other data, and a source of systems data)(Col. 2, lines 1-60).

Regarding claim 17, Anderson discloses wherein the encryption provides copy protection for the data packets associated with the at least one packetized data stream (i.e., Conditional Access Table that is used to specify scrambling/descrambling control and access provides a method of copy protection)(Col. 2, lines 1-37 and Col. 4, lines 43-67 and Col. 5, lines 1-15).

Regarding claim 18, Anderson discloses a host terminal that provides a multiplexed signal to an external conditional access module (i.e., Conditional Access Table that is used to specify scrambling/descrambling control and access), wherein the multiplexed signal includes data packets from at least two packetized data streams, a host terminal comprising:

a multiplexer for combining data packets from the at least two packetized data streams into the multiplexed signal, for assigning a unique indicator that indicates which tuner received the packetized data stream associated with the data packets, for transmitting the multiplexed signal to the external conditional access module (i.e., Conditional Access Table that is used to specify scrambling/descrambling control and

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access), and for communicating the unique designator associated with each data packet to the external conditional access module (i.e., data packets are multiplexed and transmitted to receiver devices regardless to whether or not they had the proper PID to decrypt and display it)(Col. 2, lines 1-67 and Col. 4, lines 27-67 and Col. 5, lines 1-15).

Anderson does not expressly disclose multiple tuners.

However, Banker discloses a host terminal comprising at least two tuners, each tuner for receiving one of the at least two packetized data streams (Col. 2, lines 60-67 and Col. 3, lines 1-8 and Col. 9, lines 33-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teachings of Anderson with the teachings of Banker because it would allow to include a host terminal comprising at least two tuners, each tuner for receiving one of the at least two packetized data streams with the motivation to provide subscription television systems capable of transmitting and receiving channels of information, and for enabling display of a combination of services simultaneously (Banker, Col. 1, lines 15-25).

Regarding claim 19, Anderson discloses wherein the data packets and the packetized data stream are in a format compliant with one of Moving Picture Experts Group type 2 (MPEG-2) standard, Moving Picture Experts Group type 4 (MPEG-4) standard, Asynchronous Transfer Modulation (ATM) standard, and Internet Protocol (IP) standard (Col. 2, lines 17-36).

Regarding claim 20, Anderson discloses further comprising a demultiplexer for receiving an output signal from the external conditional access module (i.e., Conditional Access Table that is used to specify scrambling/descrambling control and access), for de-multiplexing the output signal, and for providing the at least two packetized data streams as separate packetized data streams (Col. 2, lines 1-37 and Col. 4, lines 43-67 and Col. 5, lines 1-15).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Saeger et al., (U.S. Patent No. 5,430,494), and
Sheldrick et al., (U.S. Patent No. 5,506,904).

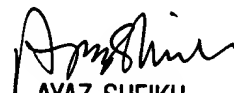
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arezoo Sherkat whose telephone number is (703) 305-8749. The examiner can normally be reached on 8:00-4:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (703) 305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arezoo Sherkat
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May 5, 2004



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